

2/3 015 UNCLASSIFIED PROCESSING DATE--18SEP70
 CIRC ACCESSION NO--AP0100890
 ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PASSING DRY HCL INTO 71.5 G N (2
 HYDROXYETHYL)HEXAMETHYLENIMINE IN CSUB6HSUB6, ADD ING 71.4 G SOCLSUB2,
 AND HEATING 1 HR AT 40DEGREES GAVE 70PERCENT SOLID N (2
 CHLOROETHYL)HEXAMETHYLENIMINE HCL, THIS WITH ALKALI GAVE THE LIQ. FREE
 BASE, WHICH HEATED, OR TREATED WITH HSUB20 OR ALCS., WAS CONVERTED INTO
 A SOLID CONTG. IONIC CL. THE AMINE (26G) HEATED IN ETSUB0 6 HR WITH THE
 REACTION PRODUCT OF 21.5G. RHO MESUB3CCSUB6HSUB4SH AND 3 G K GAVE
 50PERCENT RCSUB6HSUB4SCHSUB2CHSUB2NRSUB2 (NRSUB2 EQUALS
 HEXAMETHYLENIMINO) R EQUALS RHO MESUB3C, BSUB2 172-60DEGREES, SIMILARLY
 WAS PREPD. THE ANALOG WITH R EQUALS RHO ME, BSUB2 158-64DEGREES.
 SIMILAR REACTION WITH RHO-ETCSUB6HSUB4SCHSUB2CHSUB2 IONA GAVE 50PERCENT
 UNDISTD. RHO-ETCSUB6HSUB4SCHSUB2CHSUB2OCHSUB2CHSUB2NRSUB2, SIMILARLY
 WERE PREPD. RHO-MEC SUB6HSUB4SCHSUB2CHSUB2OCHSUB2CHSUB2NRSUB2, 45PERCENT,
 BSUB1 140-5DEGREES, AND RHO-MEPRCH ANALOG, BSUB1 164-7DEGREES,
 NPRIME20SUBD 1.3454.

UNCLASSIFIED

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UNCLASSIFIED

PROCESSING DATE--13SEP70

CIRC ACCESSION NO--AP0100890

ABSTRACT/EXTRACT--TREATING THE APPROPRIATE AMINES WITH ALKYL HALIDES GAVE THE FOLLOWING QUATERNARY SALTS:

(RHO-RC SUB 6 HSUB 4 SCHSUB 2 CHSUB 2 NRSUB 2 RPRIME 1) PLUSXMINUS (NRSUB 2 EQUALS HEXAMETHYLENIMINO) (R, RPRIME 1, AND X SHOWN): ME, CSUB 7 HSUB 15, BR, ME, CSUB 10 HSUB 21, BR, ME, CHSUB 2 COSUB 2 CSUB 7 HSUB 15, CL, ME, CHSUB 2 COSUB 2 CSUB 10 HSUB 21, CL, MESUB 36, CSUB 6 HSUB 13, BR, MESUB 3C, CSUB 7 HSUB 15, BR, MESUB 3C, PHCNSUB 2, CL, THE FOLLOWING RHO-RC SUB 6 HSUB 4 SCHSUB 2 CHSUB 2 CHSUB 2 NRSUB 2 RPRIME 1 PLUSXMINUS: ME, CSUB 7 HSUB 15, BR, ME, CSUB 10 HSUB 21, BR, ME, CHSUB 3 COSUB 2 CSUB 10 HSUB 21, CL, ME, CLSUB 12 HSUB 25, BR, ET, CSUB 7 HSUB 15, BR, ET, CSUB 10 HSUB 21, BR, MEPRCH, CSUB 5 HSUB 4, BR, MEPRCH, CSUB 6 HSUB 13, BR, MEPRCH, PHCNSUB 2, CL, MEPRCH, CSUB 7 HSUB 15, BR, MEPRCH, CSUB 8 HSUB 17, BR, MEPRCH, CSUB 10 HSUB 21, BR, AND MEPRCH, CHSUB 2 COSUB 2 CSUB 7 HSUB 15, CL. BACTERICIDAL TEST DATA WERE TABULATED, THEY WERE RELATIVELY NONTOXIC TO ANIMALS AND RATHER ACTIVE AGAINST MICROORGANISMS, AND MOST ACTIVE WERE THE MEMBERS WITH DECYL SUBSTITUENTS.

UNCLASSIFIED

1/2 009 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--DETERMINATION OF THE HEAT OF HYDRATION OF CEMENT -U-
AUTHOR--(04)-ZASEDATELEV, I.B., NAMEDOV, F.YU., MISHIN, G.V., KUZNECHENKO,
YU.L.
COUNTRY OF INFO--USSR
SOURCE--USSR 263,221
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,
DATE PUBLISHED--04FEB70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--CEMENT, PATENT, HEAT OF HYDRATION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAHE--3002/1475 STEP NO--UK/0482/70/000/000/0000/0000
CIRC ACCESSION NO--AA0128874
UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AA0128874

ABSTRACT/EXTRACT--(U) GP-O- ABSTRACT. THE HEAT OF HYDRATION OF CEMENT WAS DETD. BY CALORIMETRIC MEASUREMENTS IN AN AUTOCLAVE, USING A DIFFERENTIAL CALORIMETER CONTG. REF. SUBSTANCES AND THE SUBSTANCES TO BE ANALYZED. TO INCREASE THE TEMP. RANGE OF THE ANAL., THE AUTOCLAVE IS FILLED WITH GAS, SUCH AS N, AT A PRESET PRESSURE AND THE TEMP. OF THE MEDIUM IN THE AUTOCLAVE IS MAINTAINED AT A LEVEL BELOW THE B. P. OF WATER AT THE PRESET PRESSURE. THE DIFFERENCE IN THE CONSUMPTION OF ELEC. ENERGY EXPENDED WHILE HEATING THE SUBSTANCE BEING ANALYZED ACCORDING TO A SET PROGRAM AND WHILE MAINTAINING THE TEMP. OF THE REF. CALORIMETRIC SUBSTANCE AT THE TEMP. OF THE SUBSTANCE UNDER ANAL. IS DETD. THE UNKNOWN QUANTITY IS DETD. FROM THE DIFFERENCE IN THESE CONSUMPTIONS. FACILITY: TEPLOPKOYEK ALL UNION SCIENTIFIC RESEARCH AND DESIGN INSTITUTE.

UNCLASSIFIED

1/2 009 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--DEWATERING OF PETROLEUMS FROM THE SANGACHALY DUVANNYI SEA DEPOSIT
-U-
AUTHOR--(04)--SULEIMANOV, A.B., MAMEDOV, KH.M., MAMEDOV, G.Z., GUMBATOV,
G.G.
COUNTRY OF INFO--USSR
SOURCE--AZERB. NEFT. KHOZ. 1970, (1), 32-4
DATE PUBLISHED-----70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, MATERIALS

TOPIC TAGS--PETROLEUM DEPOSIT, PETROLEUM DEHYDRATION, CRUDE OIL,
GEOGRAPHIC LOCATION, MOLECULAR WEIGHT, PETROLEUM DEMULSIFICATION/(U)NCHK
PETROLEUM DEMULSIFIER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3001/2071

STEP NO--UR/0487/70/000/001/0032/0034

CIRC ACCESSION NO--AP0127444

UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0127444

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SANGACHALY DOVANNYI SEA PETROLEUM,
D PRIME20 0.8834, MOL. WT. 254, VISCOSITY AT 20DEGREES 67.8 CST, CONTG.
6.5PERCENT SILICA GEL TARS, 20PERCENT H SUB2 SO SUB4 TARS, 14PERCENT
ASPHALTENES, 8-10PERCENT PARAFFIN M. 51DEGREES, 0.32PERCENT NAPHTHENIC
ACIDS, 46PERCENT PARAFFINIC NAPHTHENIC HYDROCARBONS IN THE 62-85DEGREES
FRACTION, 1PERCENT OF FRACTIONS B. IS SMALLER THAN OR EQUAL TO
80DEGREES, AND ALK. WATER WITH SU SUB4 PRIME2 NEGATIVE HARDNESS WAS
DEWATERED TO A H SUB2 O CONTENT OF 1-1.5PERCENT BY PUMPING IT THROUGH A
TUBE FURNACE, ADDING 1.5PERCENT OF CA TYPE NCHK DEMULSIFIER AT
75-80DEGREES, AND PUMPING IT INTO A SETTLING TANK WHERE A BOTTOM HEATING
COIL PROLONGED THE SETTLING PERIOD AT TEMPS. IS GREATER THAN 51DEGREES.
RECYCLING OF THE SEPD. WATER CONTG. DEMULSIFIER REDUCED THE OUTLAY OF
NCHK.

UNCLASSIFIED

USSR

UDC 543.242.3:546.655

MAMEDOV, I. A., and NABIYEV, M. N., Department of Analytical Chemistry, Azerbaydzhan Institute of Petroleum and Chemistry imeni M. Azizbekov

"Arsenate-Iodometric Determination of Cerium (IV) and Aluminum When Present Together"

Ivanovo, Izvestiya Vysshikh Uchebnykh Zavedeniy, Khimiya i Khimicheskaya Tekhnologiya, Vol 13, No 12, 1970, pp 1718-1719

Abstract: A procedure for arsenate-iodometric determination of cerium (IV) and aluminum, when present together, is described. The procedure is reduced to precipitating these metals as their arsenates, subsequent dissolution of the precipitates in strong acid, and iodometric titration of the liberated arsenous acid by sodium thiosulfate solution in the presence of benzene. The analysis takes 30-35 minutes and is fairly accurate. Two variants of determinations are described, and analytical data are given for a wide range of concentrations.

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USSR

HAMEDOV, K., and RAKHIMKULOV, R. YU., Institute of Botany, Academy of Sciences Turkmen SSR

"Review of the Literature on the Effect of Ionizing Radiation and Chemical Mutagens on Plants III"

Ashkhabad, Izvestiya Akademii Nauk Turkmeniskoy SSR, Ser. Biol. Nauk, No 2, 1971, pp 86-92

Abstract: One- or two-line annotations are given for 66 articles dissertations, and books in Russian (or translated into Russian) published between 1933 and 1967. The items are arranged in alphabetical order by author. Among the works listed are "Chemical Mutagens and Plant Ploidy" by R. N. Platonov and V. V. Sakharov, "Mechanism of Action of Supermutagens" by I. A. Rapoport, "Methods of Detecting Induced Somatic Mutations in the Potato" by Ye. A. Solozko, "Effect of Chemical Mutagens and Gamma Rays on Mutability of Pea Varieties" by K. K. Sidorova, "Use of Ionizing Radiation in Plant Breeding" by V. V. Khvostova and S. A. Valeva, "Mutagenic Effect of Ethylenimine on Air-Dried Winter Wheat Seeds" by N. S. Eyges, and "Effect of Barley and Wheat Growing Conditions on Seed Resistance to Irradiation" by S. I. Yanushkevich.

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1/2 009 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--DEWATERING OF PETROLEUMS FROM THE SANGACHALY DUVANNYI SEA DEPOSIT
-U-
AUTHOR--(04)--SULEIMANOV, A.B., MAHEDOV, KH.M., MAHEDOV, G.Z., GUMBATOV,
G.G.
COUNTRY OF INFO--USSR
SOURCE--AZERB. NEFT. KHOZ. 1970, (1), 32-4
DATE PUBLISHED-----70
SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, MATERIALS
TOPIC TAGS--PETROLEUM DEPOSIT, PETROLEUM DEHYDRATION, CRUDE OIL,
GEOGRAPHIC LOCATION, MOLECULAR WEIGHT, PETROLEUM DEMULSIFICATION/(U)NCHK
PETROLEUM DEMULSIFIER
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3001/2071 STEP NO--UR/0487/70/000/001/0032/0034
CIRC ACCESSION NO--AP0127444
UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0127444

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SANGACHALY DUVANNYI SEA PETROLEUM, D PRIME20 0.8834, MOL. WT. 254, VISCOSITY AT 20DEGREES 67.8 CST, CONTG. 6.5PERCENT SILICA GEL TARS, 20PERCENT H SUB2 SO SUB4 TARS, 14PERCENT ASPHALTENES, 8-10PERCENT PARAFFIN M. 51DEGREES, 0.32PERCENT NAPHTHENIC ACIDS, 46PERCENT PARAFFINIC NAPHTHENIC HYDROCARBONS IN THE 62-85DEGREES FRACTION, 1PERCENT OF FRACTIONS B. IS SMALLER THAN OR EQUAL TO 80DEGREES, AND ALK. WATER WITH SO SUB4 PRIME2 NEGATIVE HARDNESS WAS DEWATERED TO A H SUB2 O CONTENT OF 1-1.5PERCENT BY PUMPING IT THROUGH A TUBE FURNACE, ADDING 1.5PERCENT OF CA TYPE NCHK DEMULSIFIER AT 75-80DEGREES, AND PUMPING IT INTO A SETTLING TANK WHERE A BOTTOM HEATING COIL PROLONGED THE SETTLING PERIOD AT TEMPS. IS GREATER THAN 51DEGREES. RECYCLING OF THE SEPD. WATER CONTG. DEMULSIFIER REDUCED THE OUTLAY OF NCHK.

UNCLASSIFIED

USSR

UDC 621.385.64

MAMEDOV, K. YA. **M**

"Frequency Stability in Magnetrons"

Kiev, Izvestiya VUZ -- Radioelektronika, Vol 13, No 9, 1970, pp 1019-1022

Abstract: Although the electronic frequency shift in magnetrons as a function of the anode current has been investigated in many papers, the operating limits of the current and the stability region of the magnetron is rarely indicated in curves of the shift. This complicates comparisons and analyses of the frequency characteristics for magnetrons of different types. The author of this brief communication proposes the use of a more general characteristic of operation mode to replace plots of the shift: the angle of phase mismatch relative to the anode current. Thus, when experimental curves for the electronic frequency shift are absent, the operating point for a particular magnetron can be chosen by this angle. The curves given in the communication indicate that the best condition for frequency stability is obtained with operation at low values of the angle and a heater current of zero when the cathode thermal balance is maintained by inverse electron bombardment.

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Acc. Nr:

AP0047250

M

Ref. Code: UR0504

PRIMARY SOURCE: Terapevticheskiy Arkhiv, 1970, Vol 42, Nr 1 ,
pp 46-48

INDICES OF EXTERNAL RESPIRATION IN ISCHEMIC DISEASE
OF THE HEART

S. M. Gusman, I. I. Mamedov

Summary

The authors conducted a complex investigation of the external respiration function in 32 patients with different forms of ischemic disease of the heart by means of a spirometabolograph. The ventilation indices of the functional condition of the external respiration (respiratory volume, minute respiratory volume, maximum pulmonary ventilation) appeared to be mostly altered.

There was also seen a drop in the vital capacity of the lungs due to the decrease of the volume of its components. There was a tendency to a rise in oxygen consumption, though the coefficient of oxygen consumption remained within the norma.

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REEL/FRAME
19790757

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USSR

UDC 532.516

MAMEDOV, M. A.

"Study of the Problems of Flow Similarities of Viscous Fluids"

Tr. Azerb. NII vod. probl. (Works of the Azerbaijan Scientific Research Institute of Water Problems), 1972, Vol. 3, pp 90-96 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3B799)

Translation: Problems of the similarity of motions of viscous fluids are discussed. A parameter which simultaneously takes into account the effect of gravitational forces, pressure, inertia, and viscosity is obtained by the similarity method. Satisfactory results in modeling rudder processes were obtained on the basis of the new similarity criterion. 12 ref. Author's abstract.

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1/2 007 UNCLASSIFIED PROCESSING DATE--02OCT70
TITLE--PREPARATION OF VINYL CHLORIDE BY THE DIRECT CHLORINATION OF
ETHYLENE IN A FLUIDIZED CONTACT BED ON A PILOT PLANT APPARATUS -U-
AUTHOR-(U5)-ALIYEV, V.S., NAMEDOV, M.A., GUSEYNOV, M.Y., PUPOVA, T.P.,
AGAYEV, M.T.
COUNTRY OF INFO--USSR
SOURCE--ZH. PRIKL. KHIM. (LENINGRAD) 1970, 43(3) 616-20
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--VINYL CHLORIDE, ETHYLENE, FLUIDIZED BED, CHEMICAL PRODUCT
PRODUCTION, CHLORINATED ORGANIC COMPOUND, CHLORINATION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/F-RAME--1992/0339 STEP NO--UR/0080/70/043/003/0616/0620
CIRC ACCESSION NO--AP0111533
UNCLASSIFIED

2/2 007

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0111533

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CH SUB2:CHCL WAS PREPD. IN MAX. 85.5PERCENT YIELD BASED ON C SUB2 H SUB4 (80.6PERCENT ON CL) WHEN CHLORINATION OF C SUB2 H SUB4 WAS CARRIED OUT AT 450DEGREES WITH A 4:1 C SUB2 H SUB4-CL RATIO IN A JACKETED 146-6 MM STAINLESS STEEL TUBE CONTG. A FLUIDIZED BED OF 0.14-0.30 MM QUARTZ SAND INTO WHICH CL WAS INTRODUCED AT A HEIGHT OF 250 MM ABOVE THE C SUB2 H SUB2 INPUT. THE CONDENSATE CONTAINED, BESIDES 78.03PERCENT CH SUB2: CHCL, 0.98PERCENT ETCL, 0.75PERCENT CH SUB2:CCL SUB2, 1.88PERCENT CIS AND 0.94PERCENT TRANS-CLCL:CHCL, 0.16PERCENT MECHCL SUB2, 13.35PERCENT CICH SUB2 CH SUB2 CL, 0.38PERCENT MECCCL SUB3, 0.45PERCENT CL SUB2 CHCH SUB2 CL, 1.70PERCENT CL SUB2 C:CHCL, 1.36PERCENT C SUB2 CL SUB4, 0.01PERCENT C SUB2 H SUB2, AND 0.01PERCENT CH SUB2:CHCH:CH SUB2.

UNCLASSIFIED

USSR

UDC 668.017.538

ALI-ZADE, Z. I., and MAMEDOV, M. B., Azerbaykzhan Polytechnical Institute

"Study of the Heat Capacity of Nickel-Titanium Alloys in the Area of the Curie Point"

Moscow, Fizika Metallov i Metallovedeniye, Vol 30, No 5, 1970, pp 1098-1099

Abstract: The authors studied the temperature dependence of the heat capacity of pure nickel and nickel-titanium alloys containing 2.5 and 5 wt.% Ti. The electrical and magnetic parameters of the alloys were determined. According to the authors' calculations, the maximum error in measurement of heat capacity was $\pm 2.5\%$ with a heating rate of 0.5-1.5 deg/min. The specific heat capacity of the specimens studied has a sharp maximum in the area of the curie point. As the concentration of titanium in the nickel increases, the curie point is displaced toward lower temperatures and the jump in $C_p(t)$ decreases. The anomalous increase in $C_p(t)$ for nickel-titanium alloys at 100-300° apparently results from disordering of spin systems and is a second-order phase transition of the order-disorder type.

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USSR

UDC 547.26*118.07

ABDULLAYEV, G. K., GAYDAY, V. I., MAMEDOV, K. M.

"A Method of Making Hydroxybenzyl Ester of Phosphorous Acid"

Moscow, OTkrytiya, Izobreteniya, Primyshlennyye Obraztsy, Tovarnyye Znaki,
No 15, Apr 73, Author's Certificate No 374322, Div C, filed 4 May 70, published
20 Mar 73, p 52

Translation: This Author's Certificate introduces: 1. A method of making hydroxybenzyl ethers of phosphorous acid distinguished by the fact that phenols are interacted with paraform and phosphorus trichloride at a temperature from -10 to +80°C in an organic solvent with subsequent isolation of the goal product by conventional methods. 2. A modification of this method distinguished by the fact that the process is carried out in a medium of methyl and ethyl alcohols, acetone, dioxane, or diethyl ether.

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MAMEDOV, M. Z.

Med

J-9979

101

INTRAPLEURAL USE OF HYDROCORTISONE (PP 72-73)
WITH PENICILLIN IN ACUTE OTITIS MEDIA
BY MAJOR MEDICAL SERVICE N. Z. MAMEDOV

The present diagnosis and rational treatment of acute otitis at the beginning of the disease is, as we know, very important in the prevention of various complications. In this basis we developed a simple and easily accessible method for the introduction of medicine into the ear drum area, as follows.

The patient is laid on the treatment couch with the head slightly bent. The skin of the earlobe and the external passage are thoroughly washed with alcohol. A rayon with a three percent cocaine solution is applied in the hindmost quadrant of the tympanic membrane. At the spot of the presumed puncture, an local anesthetic, a specially-made needle (a fine needle) is used with a one or two-gram syringe in piercing the eardrum. Then, a 0.3 mg of a 2.5 percent hydrocortisone emulsion with 50,000 penicillin units, diluted in 0.5 mg of 0.25 percent novocaine solution, is introduced. The following rule must be observed: the puncture must not be deep in order not to damage the inner wall of the eardrum; the amount of liquid introduced must not exceed the volume of the eardrum, which averages 0.75 cubic centimeters; at the time of the introduction of the liquid, the patient must lie on the abdomen, close his mouth and nose (so that the liquid will not reach the pharynx but will spread around the middle ear). After the treatment, the patient must lie down for 15-20 minutes on the side of the healthy ear so that the liquid may be dissolved. The medicine must be applied no more than twice per patient with a two to three day interval (in the early stages of the disease, a single treatment would be sufficient).

On December 1966 we had 29 patients under observation, suffering from acute otitis media. With a view to determining the effectiveness of the treatment, they were divided into three basic groups. The first group (nine men) were given the usual medical treatment; the second (nine) received the combined treatment (general medical and antibiotics with cortisone, administered intravenously). The third group of patients (11) were treated with hydrocortisone with penicillin. Intratympanally. Furthermore, in order to obtain more reliable comparative data on the effectiveness of our method, we used additional data on the results of the treatment with usual medical means in 66 cases (fourth group).

Aug 70 Military Medical Journal 4-01

USSR

UDC 615.849.19.015:612.845.1-036.3

KRASNOV, M. M., SAPRYKIN, P. I., DORONIN, P. P., NIKOL'SKAYA, G. M.,
AKOPYAN, V. S., and MAMEDOV, N. G.

"Electron-Microscopic Study of Tissues of the Eye Fundus Following Laser
Coagulation"

Moscow, Vestnik Oftal'mologii, No 2, 1973, pp 9-12

Abstract: The changes produced in the tissue of the eye fundus following exposure to therapeutic doses of laser radiation were studied in experiments on pigmented rabbits of the chinchilla breed with the purpose of obtaining data pertaining to the optimum conditions of applying laser radiation for photo-coagulation of the retina in the therapy of retinal detachment. Radiation in the energy range of $0.02-0.05 \text{ J} \pm 8\%$ (energy densities of $5.5-17.0 \text{ J/sq. cm.}$) emitted by a ruby laser was applied. The irradiated eye tissues were subjected to microscopic and electron-microscopic study on sacrificing the animals within periods of 10 min-3 wks after photocoagulation. The damage was apparently limited to the external layers of the retina and the pigmented epithelium and deeper layers were affected only slightly. Two types of damage to the retina and to the pigmented epithelium were observed, one due to mechanical effects of an explosive nature and another due to thermal coagulation effects. Within 2-3 wks the part of the photoreceptor apparatus at the site of the injury

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KRASNOV, M. M., et al., Vestnik Oftal'mologii, No 2, 1973, pp 9-12

produced by the radiation was substantially restored to a state in which it apparently was capable of functioning. The sclera was not affected. The study that had been conducted indicated that in the search for optimum conditions of laser irradiation one must attempt to reduce as far as possible mechanical effects and restrict the thermal effects to the layer of pigmented epithelium.

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USSR

UDC 621.396.6-181.48

MANEDOV, N. G.

"Vitreous Semiconductors and Their Future in Miniature Electronics"

Sb. nauch. tr. po probl. mikroelektron. Mosk. in-t elektron. tekhn. (Fiz.-mat. seriya) (Scientific Collection on Problems in Miniature Electronics, Moscow Institute of Electronics Engineering, Physics-Mathematics Series) No 9, 1972, pp 279-286 (from RZh--Radiotekhnika No 10, 1972, Abstract No 10V244)

Translation: A short review is given of the general characteristics of semiconductors, including chalcogenidic glass. The possibility is noted of using them in the construction of memory and switching elements; their superiority over other semiconductor devices of this genre is indicated. The peculiarities of the volt-ampere characteristics of the devices using vitreous semiconductors are discussed. Their areas of utilization and the possibilities of their inclusion in miniature electron devices are shown. Three illustrations, one table, bibliography of seven. K. S.

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1/2 010 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--MINERALIZATIONS AND SALT ION COMPOSITIONS OF STRATAL WATERS OF THE
LOWER FORMATION OF THE PRODUCTIVE SERIES ,PK, KS, NKP, OF THE PETROLEUM
AUTHOR--(04)--MAMEDOV, N.I., ALIKHANOV, G.G., DADASHEV, M.N., KASUMOV, K.A.

COUNTRY OF INFO--USSR

SOURCE--AZERB. NEF. KHOZ. 1970, (2), 10-12

DATE PUBLISHED-----70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--GEOCHEMISTRY, GROUND WATER, GEOGRAPHIC LOCATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRA--3003/0141

STEP NO--UR/0487/70/000/002/0010/0012

CIRC ACCESSION NO--AP0129397

UNCLASSIFIED

2/2 010 UNCLASSIFIED PROCESSING DATE--30OCT70
CIRC ACCESSION NO--AP0129397
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SOME 38 CHEM. ANALYSES OF STRATAL
WATERS FROM THE TITLE SERIES IN THE CASPIAN SEA AREA ARE PRESENTED, AND
THE GEOCHEMISTRY OF THESE WATERS IS DISCUSSED.

UNCLASSIFIED

1/2 020 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--EFFECT OF THE ANTIOXIDANT ADDITIVE IONOL ON THE PROPERTIES OF
TRANSFORMER OILS -U-
AUTHOR--(03)-KULIYEV, R.SH., MAMEDOV, N.SH., MUSAYEV, G.Y.
COUNTRY OF INFO--USSR
SOURCE--KHIM. TEKHNOL. TOPL. MASEL 1970, 15(4), 52-3
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--PHYSICAL CHEMISTRY PROPERTY, ELECTRIC PROPERTY, TRANSFORMER
OIL, DIELECTRIC PERMEABILITY, ANTIOXIDANT ADDITIVE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3001/2088 STEP NO--UR/0065/70/015/004/0052/0053
CIRC ACCESSION NO--AP0127461
UNCLASSIFIED

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UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0127461

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ADDN. OF 0.1-0.3PERCENT IONOL (2,6,DI,TERT,BUTYL,4,METHYLPHENOL) TO FRESHLY REFINED TRANSFORMER OIL PRODUCED NO ALTERATION OF ITS ELEC. PHYS. PROPERTIES. AFTER OXIDN. OF THE OIL WITH ADDITIVE, ITS ELEC. RESISTIVITY INCREASED, BUT ITS DIELEC. PENETRABILITY CHANGED LITTLE. IONOL HAD ALSO LITTLE INFLUENCE ON THE DECREASE IN THE AMT. OF OXIDN. PRODUCTS AFTER OXIDN. FACILITY: INKHP, BAKU, USSR.

UNCLASSIFIED

USSR

UDC 678.742.3.01:53

MAMEDOV, R. I., SADYKH-ZADE, S. I., SULTANOV, R. A., ALIYEV, G. D.
ALI-ZADE, E. M., and FATALIYEV, A. G.

"Modification of Polypropylene With Organsphosphorus Compounds During the Reprocessing"

Moscow, Plasticheskiye Massy, No 6, 1973, pp 61-62

Abstract: Results of the investigation of thermal and optical ageing of a polypropylene sample modified by a diphosphite are described. It was established that addition of the diphosphite to the polypropylene retards the oxidation processes, this material exhibiting better indexes than polypropylene samples modified with synergistic mixtures of 0.3% of topanol KA + 0.5% of dilauryl thiodipropionate and the light stabilizer benzene OA. Addition of the diphosphite to the polypropylene increases considerably its elasticity preserving its starting strength and increasing its frost stability down to -30°C .

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USSR

UDC: 517.514

DZHAFAROV, A. S., MAMEDOV, SH. F.

"Traces of Functions of Certain Weight Classes"

Teoremy Vlozheniya i Ikh Prilozheniya [Imbedding Theorems and Their Applications -- Collection of Works], Moscow, Nauka Press, 1970, pp 81-95, (Translated from Referativnyy Zhurnal Matematika, No. 8, 1970, Abstract #8B82, by the authors).

Translation: An evaluation is made for the closeness of certain functions of several variables of class (like the class $H_p^{l_1, \dots, l_n}$ of S. M. Nikol'skiy) having differential properties in mixed Lebesgue norms with weight $\prod_{k=1}^n (1+|x_k|)^{\alpha_k}$ to their values on a hyperplane of lower measure, where α_k are arbitrary real numbers. It is also established that this rate cannot be improved. The results produced are closely related to the results of S. L. Sobolev, V. I. Kondrachev, S. M. Nikol'skiy, L. D. Kudryavtsev, and P. Pilik.

1/1

USSR

UDC: 517.514

MAMEDOV, SH. R.

"Theorems of Imbedding for Spaces of Strongly Analytic Functions"

Teoremy Vlozheniya i Ikh Prilozheniya [Imbedding Theorems and Their Applications -- Collection of Works], Moscow, Nauka Press, 1970, pp 162-167, (Translated from Referativnyy Zhurnal Matematika, No. 8, 1970, Abstract #8B80, by the author).

Translation: In the spaces of strongly analytic functions $M_S^k(D^k, \mu_k, p)$ in the cube D^k , introduced by the author earlier, direct and inverse imbedding-type theorems are proven, establishing the relationship of functions from $M_S^k(D^k, \mu_k, p)$, with its trace in cube D^j of smaller size. In the space of functions $M_S^k(D^k, 1, p)$ with unit weight a proof is given of the existence of the generalized derivatives of S. L. Sobolev, and the structural properties of the generalized derivatives of functions $M_S^k(D^k, 1, p)$ are indicated.

1/1

UDC 577.3

USSR

ABDULLAYEV, G. B., MAMEDOV, Sh. V., DZHAFAROV, A. I., and PERELYGIN, V. V.,
Institute of Physics and Institute of Physiology

"Inhibition of Free Radicals in the Retina by Selenium"

Baku, Doklady Akademii Nauk Azerbaydzhanskoy SSR, No 3, 1973, pp 25-28

Abstract: The electron paramagnetic resonance spectrum was studied in the enucleated eyes of rabbits two days after they received parenteral injections of sodium selenite. At room temperature, both the control and experimental preparations of the retina and pigment epithelium showed an almost symmetrical singlet with $g = 2.0035 \pm 0.005$ and $\Delta H_m = 6 \pm 5$ oe. The only difference was in the intensity of the signal. The signals were more intense in the pigment epithelium. At the temperature of liquid nitrogen, all the parameters of the line were almost unchanged, but there was a substantial decrease in intensity of the signal. After the specimens were thawed at room temperature, the intensity of the signal was completely restored. In specimens from animals treated with selenium, the shape, g-factor, and width of the line remained unchanged, although there was a significant decrease in concentration of the paramagnetic centers compared to the control.

1/1

USSR

UDC 535.34:539.213.27

ABDULLAYEV, G. B., MAMEDOV, SH. V., ABUTALYEVA, Z. M., IBERAGIMOV, N. I., and VOLCHENKOV, YE. YA., Institute of Physics, Academy of Sciences Azerbaydzhani SSR

"On Some Peculiarities of IR Absorption of Amorphous Selenium"

Baku, Izvestiya Akademii Nauk Azerbaydzhanskoy SSR, Seriya Fiziko-Tekhnicheskikh i Matematicheskikh Nauk, No 4, 1971, pp 100-113

Abstract: The authors undertook to elucidate those peculiarities of the selenium IR spectrum which are related to its preheat treatment. The initial material was amorphous powdered selenium, purity 99.9999 percent (V-5). Three series of samples were fabricated; viz., (1) from V-5 selenium evacuated to $p \leq 10^{-4}$ mm Hg, (2) from selenium with 0.05 vol. percent I_2 , and (3) from selenium with 0.05 at. percent Tl. All samples underwent heat treatment in the 280-700° C range. The IR spectra display bands at 3.5, 4.16, 9.0, 13.5, 16.0, 20.4 microns depending on T_{tr} , with the 20.4-micron band strongest, 13.5

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USSR

ABDULLAYEV, G. B., et al., Izvestiya Akademii Nauk Azerbaydzhanskoy SSR, Seriya Fiziko-Tekhnicheskikh i Matematicheskikh Nauk, No 4, 1971, pp 100-113

medium strong, and the rest weak. The optical density of bands at 20.4, 13.5, and 16.0 microns is constant for all T_{tr} , while the T_{tr} -dependence of the optical density of bands at 3.5, 4.6, and 9 microns is of an extremal character.

It was found for the first time that the degree of transmission (background) depends on T_{tr} . There are two types of background: 1) general background and (2) background increasing in the direction of the short-wave region of the spectrum. The behavior of both backgrounds is of a regular character. The likeliest cause of the appearance of background is the Tyndall effect. General background may be due to scattering by large supramolecular formations, the second background to the Rayleigh-Jeans mechanism. The previous temperature history, along with the crystallization temperature, has a significant effect

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USSR

ABDULLAYEV, G. B., et al., Izvestiya Akademii Nauk Azerbaydzhanskoy SSR, Seriya Fiziko-Tekhnicheskikh i Matematicheskikh Nauk, No 4, 1971, pp 100-113

on the selenium crystallization process and the structure of the resultant material. In the molten state selenium is a structured system, and the growth of small crystals from such a melt may occur by the addition of ordered aggregates of macromolecules.

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- 92 -

1/2: 031
UNCLASSIFIED
PROCESSING DATE--18SEP70
TITLE--DECOMPOSITION OF PARAMAGNETIC CENTERS IN SELENIUM -U-
AUTHOR--(04)-ABDULLAYEV, G.B., IBRAGIMOV, N.I., MAMEDOV, SH.V., IBADOV,
A.KH.
COUNTRY OF INFO--USSR
SOURCE--FIZ. TEKH. POLUPROV. 1970, 4(1), 97-100
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--ELECTRON PARAMAGNETIC RESONANCE, POTENTIAL DIFFERENCE,
ACTIVATION ENERGY, SELENIUM, PARAMAGNETIC METAL, CRYSTAL DEFORMATION,
BROMINE, IODINE, OXYGEN, THALLIUM, THERMAL EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1983/1004

STEP NO--UR/0449/70/004/001/0097/0100

CIRC ACCESSION NO--AP0053924

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--18SEP70

2/2 031

CIRC ACCESSION NO--AP0053924

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AN EPR STUDY WAS CARRIED OUT OF SE
 IMPURITY 99.9999 AND 99.99PERCENT) WITH O, BR, I AND TL IMPURITIES AT T
 EQUALS 300-700DEGREESK. THE TEMP. DEPENDENCE OF THE CONCN. OF
 PARAMAGNETIC CENTERS (N) OBEYS THE FORMULA $N = N_0 \exp(-\frac{E_a}{RT})$, WHERE
 THE ACTIVATION ENERGY, E_a , OF THE REVERSIBLE DECOMP. OF
 PARAMAGNETIC CENTERS IS 0.12, 0.24, AND 0.28 EV FOR O, BR, AND I, RESP.;
 θ IS THE TEMP. AT WHICH THE PARAMAGNETIC CENTERS DECOMP. COMPLETELY.
 THIS θ IS IDENTICAL WITH THE TEMP. AT WHICH THE CHAIN LIKE
 STRUCTURE OF LIQ. SE IS DESTROYED (I.E. IS SIMILAR TO 740DEGREESK). A
 CORRELATION IS FOUND BETWEEN E_a AND THE AFFINITY WITH THE ACCEPTOR
 MOL. ELECTRON, ϕ : $E_a = 0.16\phi$.

UNCLASSIFIED

USSR

UDC 536.413:620.181.428.4.05.082

ALIYEV, N. G., KERIMOV, I. G., KURBANOV, M. M., and MAMEDOV, T. A.

"A Dilatometer With Photoelectric Registration"

Moscow, Teplofiz. svoystva veshchestv pri nizk. temperaturakh -- sb.
(Thermophysical Properties of Substances at Low Temperatures -- Collection of
Works), 1972, pp 163-167 (from Referativnyy Zhurnal -- Metrologiya i Izmeritel'-
naya Tekhnika, No 2, 1973, Abstract No 2.32.962 by V. S. K.)

Translation: The authors describe the design of a highly sensitive dilatometer with photoelectric registration that is used to measure the thermal expansion of solids in the 4.2-400 K range, in addition to explaining the measurement procedure. The dilatometer includes a system for registering and transmitting the amount of elongation. The main part of the elongation registration system is a differential photoresistor that is part of a bridge network. A coiled constantan wire is used to heat the sample throughout its entire length. Its temperature is measured with an angular resistance thermometer in the 4.2-100 K range, and with a copper-constantan thermocouple in the 100-400 K range. The instrument is calibrated over the 4.2-400 K range by using a piece of copper 50 mm long and 5 mm in diameter as a standard. The instrument was checked by measuring the thermal expansion of aluminum; this showed that the measurement

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USSR

ALIYEV, N. G., et al., Teplofiz. svoystva veshchestv pri nizk. temperaturakh — sb., 1972, pp 163-167

accuracy was 0.5 percent with respect to the calibration data. The dilatometer's sensitivity was found to be $1 \cdot 10^{-9}$. This measurement method makes it possible to eliminate the introduction of a correction factor for the expansion of quartz. (3 illustrations; 13 bibliog. ref.)

2/2

AA0040777

UR 0482

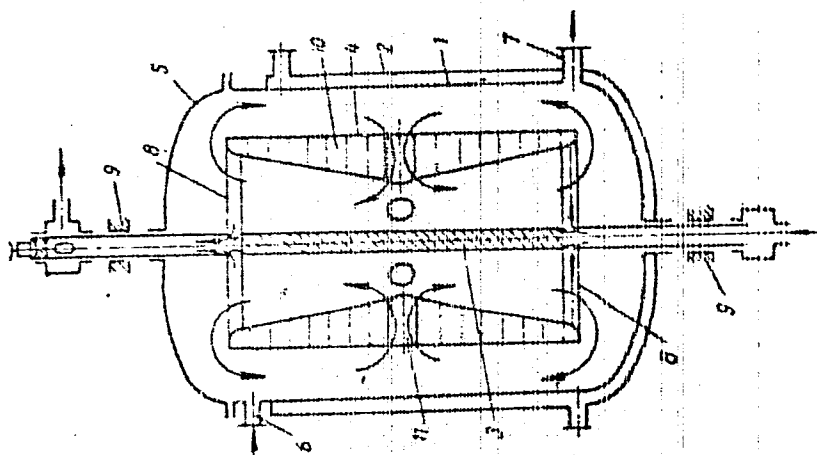
Soviet Inventions Illustrated, Section I Chemical, Derwent, 1-70

240677 POLYMERISER for e.g. rubber manufacture giving intensive mixing of the liquid in which the hollow cylinder of the mixer is of K-shaped internal configuration. The reacting material is circulated through holes in the sides, and over the ends of the mixer. The greater height of the mixer, compared with its diameter, is advantageous in large-volume apparatus of this kind.

31.8.66. as 1099965/23-26, MAMEDOV, U.A. and BASIEV, I.M. (21.8.69) Bul. 15, 1969, Class 12g Int. Cl. B 01j.

19750481

AA0040777



LD

7/2

19750482

USSR

UDC 681.333:519.2

ZORICH, A. Ye., KONOVALOV, V. N., and MAMEDOV, V. F.

"A Device for Determining the Probability Density of Extremal Values of Random Processes"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 25, Sep 71, p 193 (G 06 g 7/52, No 312274 (1361705/18-24 from 19 September 1969; Claimant: State Scientific Research Institute of Civil Aviation)

Abstract: This patent claims a device for determining the probability density of extremal values of random processes, containing a quantizer of the input signal for a given number of levels with impulse outputs and a block of registering counters; the device is distinguished in that for the purpose of increasing the error detection, it contains a multiple input coincidence block connected to the outputs of the quantizer, to which a control block is also connected that joins the two outputs with the input control coincidence block, connected to the block of registering counters.

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- 48 -

Pulse Technique

M

UDC: 621.318.3.004.5:621.376.5

USSR

TSESARUK, N. Ya., KOSTROMIN, V. K., KLYATSKIN, M. G., MAJEDOV, V. I.

"A Method of Monitoring the Generation of a Control Command From a Pulse-Duration Modulator by the Armature of an Electromagnetic Drive Which Does not Have its Own Contact Groups"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obratzsy, Tovarnyye Znaki, No 21, 1970, Author's Certificate No 274222, filed 20 Jun 69, p 57

Abstract: This author's certificate introduces a method of monitoring the generation of a control command from a pulse-duration modulator by the armature of an electromagnetic drive which does not have its own contact groups. Monitoring is accomplished by forming electrical pulses corresponding to the times when armature motion is completed. As a distinguishing feature of the patent, the reliability of monitoring is assured by using the above-mentioned electric pulses to form a pulse signal corresponding to the generated command, and comparing this signal with the control command signal with respect to phase shift and frequency.

1/1

AA0044648

UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

2/70

238191 INSTRUMENT FOR INVESTIGATING PIEZOELECTRIC
CONVERTER has been improved by making the
carrier of the tested sample (3) as a yoke. The
vertical movements of the carrier are provided by
a screw (14) and the mounting (18) of the sample
can be adjusted in the horizontal plane by a
screw (19). Both position adjusting screws (14 &
19) have their locking arrangements (20). A mirror
(5) from the optical part of the instrument is
mounted by a spring (4) on the free end of the
sample.

27.10.65 as 1034534/18-10.V.N.MYZNIKOV et al
(3.7.69) Bul 9/20.2.69. Class 42k. Int.Cl.G 011.

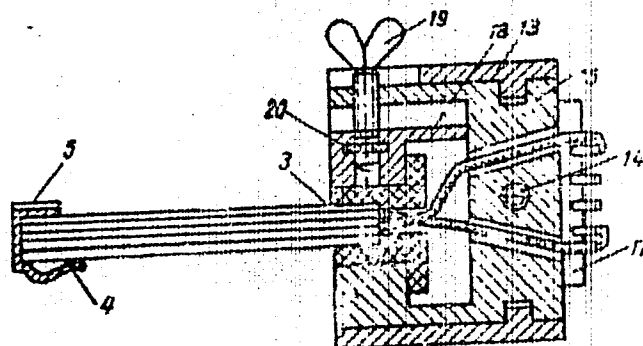
AUTHORS: Myznikov, V. N.; Mamedov, V. I.; Likhterov, V. M.

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19771360

AA0044648

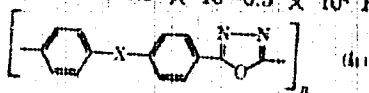


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19771361

jc

gov, V. M., Golubkov, G. E., Tur, D. B., (Inst. Elementorg. Soedin., Moscow, USSR). *Vysokomol. Soedin. Ser. B* 1970, 12(1), 57-9 (Russ). The dielec. permeability, dielec. loss factor ($\tan \delta$), and elec. cond. (ρ) of Ia (X = O) (I) and Ia (X = phthalidyldene) (II) were detd. at 0.5×10^2 - 0.5×10^4 Hz and -100 to



+400°. I and II were prepd. by polycyclization in polyphosphoric acid and cast on a glass support to form films 50 μ thick. A plot of $\tan \delta$ vs. temp. showed that a substitution of an ether bond for a phthalidyldene group brought about a significant increase in the max. of $\tan \delta$, (due to a relaxation of the polar groups) and a slight decrease in activation energy. A plot of ρ , vs. temp. for I had an inflection, suggesting that a transition into another state had occurred. Heat treatment of I or II in vacuo at 250° failed to affect the dependence of ρ on temp. CKJR

REEL/FRAME
19821143

Acc. Nr:

AP0052502

Abstracting Service:
CHEMICAL ABST. 5-76

Ref. Code:

4R0460

101310t Effect of structural phenomena on the electrophysiological properties of oxadiazole polymers. Korsliak, V. V.; Mamedov, V. M.; Golubkov, G. B. *Chem. Abstr.* 1976, 86, 101310t.

2/2 007 UNCLASSIFIED PROCESSING DATE--13NOV70
CIRC ACCESSION NO--AP0133800
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FILTRATION OF AQ. SOLNS.
CONTG. SMALLER THAN OR EQUAL TO 0.3PERCENT POLYACRYLAMIDE (I) THROUGH
COLUMNS FILLED WITH QUARTZ SAND GRADUALLY REDUCED THE FILTRATION RATE
(R), AND R VARIED INVERSELY WITH THE CONCN. OF I IN THE SOLNS. THE ADD.
OF 20PERCENT CLAY TO SAND REDUCED R BY SIMILAR TO 50PERCENT; THE ADD. OF
ONLY 0.3PERCENT I REDUCES R BY SMALLER THAN OR EQUAL TO 100PERCENT. I
SOLNS. ARE RECOMMENDED FOR OIL WELL FLOODING.

1/2 013 UNCLASSIFIED PROCESSING DATE--16OCT70
TITLE--PROCEDURE FOR DETERMINING THE QUANTITY OF ADSORBED GAS BASED ON A
CHANGE IN THE SPECIFIC WEIGHT OF THE GAS MIXTURE +U-
AUTHOR-(03)-ASLANOV, SH.S., MAMEDOV, YU.G., KHYDYRKULIEV, B.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., NEFT GAZ 1970, 13(1), 49-52

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CHEMICAL ANALYSIS, GAS, NITROGEN

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1996/1639

STEP NO--UR/0152/T0/013/001/0049/0052

CIRC ACCESSION NO--AT0118618

UNCLASSIFIED

2/2 G13

UNCLASSIFIED

PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AT0118618

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A GAS CONDENSATE MIXT. WAS PASSED THROUGH A COLUMN, CONTG. A WELL PACKED 1:1 CLAY SAND BED, UNTIL ITS STAN., WHEN THE MIXT. WAS DISPLACED WITH N AT THE SAME PRESSURE. THE DISPLACEMENT WAS COMPLETED, WHEN THE OUTLET GAS HAD THE SP. GR. OF N. THEN, THE ADSORPTION COLUMN WAS DISCONNECTED AND ITS PRESSURE WAS GRADUALLY DECREASED BY LETTING OUT THE GAS, SAMPLES OF WHICH WERE TAKEN AT DETD. PRESSURES. THE SP. GR. OF THE SAMPLES WAS DETD. AT 1 ATM. AS THE PRESSURE IN THE COLUMN DECREASED, THE SP. GR. OF THE OUTLET GAS DECREASED, VARYING BETWEEN THE SP. GR. OF THE GAS CONDENSATE MIXT. TO THAT OF N, AS THE DESORBED GAS DURING THE PRESSURE DECREASE WAS DISPLACED BY N. HAVING THE SP. GR. OF THE GAS MIXT., THE VOL. SHARE OF THE MIXT. AND N COULD BE DETD. IN A SYSTEM WITH GAS CONDENSATE RATIO 2500:1, AT 301 ATM AND 293DEGREESK, THE SP. GR. OF THE MIXT. DECREASED BY 10PERCENT DUE TO THE DESORBED GAS. THE SHARE OF THE MIXT. IN THE ADSORBENT PORES INCREASED WITH THE PRESSURE DECREASE AND AT 140 ATM, 16PERCENT OF THE PURE VOL. WAS OCCUPIED BY THE GAS. THE HIGHER DESORPTION OCCURRED WHEN THE PRESSURE DECREASED BELOW THAT OF MAX. CONDENSATION (130 ATM). IN CLAY STRATA, GREAT AMTS. OF GAS COULD BE THUS ACCUMULATED DUE TO DIFFUSION AND ADSORPTION, WHICH ARE TO BE TAKEN INTO CONSIDERATION FOR CALCG. THE GAS RESERVES. FACILITY:

AZERB. INST. NEFTI KHIM. IM. AZIZBEKOVA, BAKU, USSR.

UNCLASSIFIED

1/2 049 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--ON SENSITIZING RECOMBINATION CENTRES IN GASE SINGLE CRYSTALS -U-
AUTHOR--(04)-ABDULLAYEV, G.B., ALIYEVA, M.KH., BELENKEY, G.L., MAMEDOVA,
A.Z.
CCOUNTRY OF INFO--USSR
SOURCE--PHYSICA STATUS SOLIDI, 1970, VOL 37, NR 2, PP 571-576
DATE PUBLISHED--70
SUBJECT AREAS--MATERIALS, PHYSICS
TOPIC TAGS--ELECTRON STRUCTURE, CRYSTAL LATTICE STRUCTURE, TIN, METAL
COATING, SINGLE CRYSTAL, OPTIC PROPERTY, REACTION KINETICS, GALLIUM
SELENIDE, PHOTOCONDUCTIVITY, RECOMBUSTION REACTION, CAPTURE CROSS
SECTION
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1989/0629 STEP NO--GE/0030/70/037/002/0571/0576
CIRC ACCESSION NO--AP0107226
UNCLASSIFIED

EV) AND OPTICAL (E PRIME) SUBPR EQUALS 0.78 EV) ENERGY LEVELS
BAND, ELECTRON (S SUBNR EQUALS 5 TIMES 10 PRIME NEGATIVE 14 CM PRIME 2)
AND HOLE (S SUBPR EQUALS 3 TIMES 10 PRIME NEGATIVE 20 CM PRIME 2) CAPTURE
CROSS SECTIONS, ARE MEASURED. THE CONCENTRATION IS FOUND TO BE EQUAL TO
N SUBR EQUALS 3 TIMES 10 PRIME 14 CM PRIME NEGATIVE 3. IT IS SHOWN THAT
THE R CENTRE IS A SINGLE CHARGED DONOR WHICH MAY BE DUE TO SUBSTITUTING
GA ATOMS BY SN ATOMS IN THE GASE LATTICE.

UNCLASSIFIED

USSR

UDC: 517.946

MAMEDOVA B. S.

"Investigating Generalized and Classical Solutions of Unidimensional Mixed Problems in the Finite Domain for One Class of Nonlinear High-Order Parabolic Equations"

Baku, Doklady Akademii Nauk Azerbaydzhanskoy SSR, vol 27, No 9, 1971, pp 8-13

Abstract: This article, presented by Academician A. I. Guseynov of the Azerbaijan Academy of Sciences, investigates the following problem:

$$\left\{ \begin{array}{l} \frac{\partial u}{\partial t} - A(u) \cdot \sum_{i=0}^n \frac{\partial^i}{\partial x^i} (p_i(x) \frac{\partial u}{\partial x^i}) = \mu F(u) \\ u(0, x) = \varphi(x), \\ U_i(u) \equiv \sum_{j=0}^{-1} \left\{ \alpha_i \frac{\partial^j u}{\partial x^j} \Big|_{x=a} + \beta_{ij} \frac{\partial^j u}{\partial x^j} \Big|_{x=b} \right\} = 0 \quad (i = \overline{1, 2n}); \end{array} \right.$$

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USSR

UDC: 517.946

MAMEDOVA, B. S., Doklady Akademii Nauk Azerbaydzhanskoy SSR,
vol 27, No 9, 1971, pp 8-13

where $0 \leq t \leq T < +\infty$, $a \leq x \leq b$ (a and b are finite numbers, $a < b$);
 A, F are nonlinear operators; $p_i(x) \in C^{(1)}_{[a,b]}$ ($i = \overline{0, n}$), $p_n(x) \neq 0$
at $[a, b]$; φ is the function specified at $[a, b]$; α_{ij} and β_{ij} are
constants; the linear differential operator L , generated
by $\underline{L}(u) \equiv \sum_{i=0}^n d^i/dx^i (p_i(x) du/dx^i)$ and by the boundary conditions
 $U_i(u) = 0$ ($i = \overline{1, 2n}$), is self-conjugate and negatively defined;
and μ is a parameter. The author, a member of the Institute of
Cybernetics, asserts that the article was written under the direc-
tion of K. I. Khudaverdiveyev.

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USSR

UDC 614.445(497.24):576.851

BARAGANOVA, E. YE., ZAKUTINSKAYA, N. A., MAMEDZADE, A. U., Candidate of Medical Sciences, MAMEDOVA, S. A., and MEDVEDEVA, E. P., Azerbaydzhani Anti-plague Station

"The Vibrio Content in Rivers and Some Open Water Basins Bordering on Azerbaydzhani," (Report One)

Baku, Azerbaydzhanskiy Meditsinskiy Zhurnal, No 5, May 71, pp 50-53

Abstract: A study was made of the vibrioflora (particularly cholera vibrios) of the Araks river, Apsheron'skiy canal, and Caspian sea, all waters bordering on Iran and long known as an epidemiological focus of cholera, from which the disease frequently spread to Russia. During the years 1967-1968 samples gathered from the waters of the Araks river, Apsheron'skiy canal, and Caspian Sea contained 96, 197, and 146 different types of vibrios comprising six groups (Heiberg's classification). Most types were obtained in the months between May and October. Most numerous and epidemiologically interesting were the vibrios in group one, which included also the El Tro Ogawa sero-type. Of the vibrios in this group, 18-18.7% of the total number of vibrios gathered from the waters of Araks river and the canal and 8.9% of those gathered from the Caspian Sea were agglutinated by cholera O serum in different

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USSR

BABAGAMOVA, E. YE., et al., Azerbaydzhanskiy Meditsinskiy Zhurnal, No 5,
May 71, pp 50-53

dilutions. On the basis of Heiberg's classification the vibrios gathered from Araks river were grouped as follows: group I contained 29.2%, group II -- 23.6%, group III -- 2.2%, group IV -- 14.6%, group V -- 1.2%, and group VI -- 29.2%; from Apsheronskiy canal: group I -- 52.3%, group II -- 33%, group III -- 1.5%, group IV -- 0.5%, group V -- 1.5%, and VI -- 11.2%; from Caspian Sea: group I -- 51.4%, group II -- 12.3%, group III -- 4.7%, group V -- 13%, group VI -- 18.6%. No group IV vibrios were found in the Caspian Sea. The medical and sanitary workers of Azerbaydzhan SSR have been warned that the presence of El Tor and other vibrios which are agglutinated by cholera O serum presents a constant threat of a cholera epidemic outbreak, and that at all times the necessary prophylactic measures should be enforced.

2/2

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USSR

M UDC 002.513.5:676.815.2:547

PORTYANSKIY, A. YE., LOKSINA, N. T., TASHPULATOV, YU. T., MAMEDOVA, V. M., and MEKHITIYEV, S. I.

"The Use of Punched Cards for the Solution of Specific Problems in IR Spectroscopy"

Moscow, Nauchno-Tekhnicheskaya Informatsiya, Seriya 1 -- Organizatsiya i Metodika Informatsionnoy Raboty, No 2, 1970, pp 28-30

Abstract: The article describes a direct code developed by the authors for cataloging data and solving specific spectrochemical problems which occur in the practical analysis of aliphatic nitriles ($C \leq 10$). A standard K5 two-row edge-notched card is used. To facilitate the coding, a stencil (tracing paper) with code scheme and elements (some of them borrowed from the LMS system) is pasted onto each punched card. The horizontal rows of perforations are designed for recording (all) absorption frequencies; and the vertical rows, for structure coding. The code scheme is supposed to reflect the relative arrangement of groups

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USSR

PORTYANSKIY, A. YE., et al., Nauchno-tekhnicheskaya Informatsiya, Seriya 1 -- Organizatsiya i Metodika Informatsionnoy Raboty, No 2, 1970, pp 28-30

with respect to the CN group. The code is suitable for the cataloging of IR spectra, detailed coding of the structures of various compounds, as well as for finding "structure-spectrum" correlations.

2/2

1/2 012 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--MAGNETIC PROPERTIES OF COMPLEXES OF COPPER(II) WITH SCHIFF BASES
DERIVATIVES OF IMINOXYL RADICALS -U-
AUTHOR--(04)-MEZHIDOV, A.A., MAHEDOVA, YU.G., LYUBOVSKIY, R.B.,
KURICHENKO, L.N.
COUNTRY OF INFO--USSR
SOURCE--TEKH. EKSP. KHIM. 1970, 6(1), 133-7 (RUSS)
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--MAGNETIC PROPERTY, COPPER COMPLEX, SCHIFF BASE, IMINE, EPR
SPECTRUM
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3002/1169 STEP NO--UR/0379/T0/006/001/0133/0137
CIRC ACCESSION NO--AP0128591
UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--APG128591

ABSTRACT/EXTRACT--(U) GP-C- ABSTRACT. THE DPR SPECTRA AND THE MAGNETIC SUSCEPTIBILITY WERE DETD. FOR COMPLEXES OF CU WITH PARAMAGNETIC AND DIAMAGNETIC SCHIFF BASES. THE RESULTS ARE TABULATED. THE DATA FOR THE COMPLEXES WITH THE PARAMAGNETIC SCHIFF BASES SHOW THAT THE LARGER THAN N,O GROUP OF THE PARAMAGNETIC LIGAND CAN PARTICIPATE IN THE FORMATION OF THE COORDINATION BOND WITH THE CENTRAL METAL ION. IN THIS CASE, DIAMAGNETIC AS WELL AS PARAMAGNETIC COMPLEXES ARE FORMED. APPARENTLY, THE BOND WITH THE RADICAL GROUP IS FORMED THROUGH THE O ATOM.
FACILITY: INST. KHIM. FIZ., CHERNOGOLOVKA, USSR.

UNCLASSIFIED

USSR

UDC 621.316:65.012.122

MAMEDYAROV, O. S., ZHABINSKIY, YU. V., ISMAYLOVA, T. A.

"Application of the Method of Experimental Planning for Optimizing the Operating conditions of Electric Power Distribution Systems"

Tekh. tereggi ugrunda, Za tekhn. progress (For Technical Progress), 1970, No 11, pp 12-14 (from RZh-Elektrotehnika i Energetika, No 4, Apr 71, Abstract No 4 Ye 291)

Translation: For the standard distribution network, the problem of insuring minimum active power losses consists in determining the location and power of the reactive power losses when defining the feed voltage regulation laws. Restrictions are given in the form of tolerances of voltage deviations from the rated voltage at the buses of all the consumers. There are 2 illustrations and a 2-entry bibliography. [Azerbaydzhan Scientific Research Institute of Power Engineering, Baku]

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USSR

UDC 614.445(497.24):576.851

BARAGAMOVA, E. YE., ZAKUTINSKAYA, N. A., NAMEDZADE, A. U., Candidate of Medical Sciences, MAMEDOVA, S. A., and MEDVELEVA, E. M., Azerbaydzhan Anti-plague Station

"The Vibrio Content in Rivers and Some Open Water Basins Bordering on Azerbaydzhan," (Report One)

Baku, Azerbaydzhanskiy Meditsinskiy Zhurnal, No 5, May '71, pp 50-53

Abstract: A study was made of the vibrioflora (particularly cholera vibrios) of the Araks river, Apsheronkiy canal, and Caspian sea, all waters bordering on Iran and long known as an epidemiological focus of cholera, from which the disease frequently spread to Russia. During the years 1967-1968 samples gathered from the waters of the Araks river, Apsheronkiy canal, and Caspian Sea contained 96, 197, and 146 different types of vibrios comprising six groups (Heiberg's classification). Most types were obtained in the months between May and October. Most numerous and epidemiologically interesting were the vibrios in group one, which included also the 71 Tzo Ogawa serotype. Of the vibrios in this group, 18-18.7% of the total number of vibrios gathered from the waters of Raks river and the canal and 8.9% of those gathered from the Caspian Sea were agglutinated by cholera O serum in different

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USSR

BABAGAMOVA, E. YE., et al., Azerbaydzhanskiy Meditsinskiy Zhurnal, No 5, May 71, pp 50-53

dilutions. On the basis of Heiberg's classification the vibrios gathered from Araks river were grouped as follows: group I contained 29.2%, group II -- 23.6%, group III -- 2.2%, group IV -- 14.6%, group V -- 1.2%, and group VI -- 29.2%; from Apsheronkiy canal: group I -- 52.3%, group II -- 33%, group III -- 1.5%, group IV -- 0.5%, group V -- 1.5%, and VI -- 11.2%; from Caspian Sea: group I -- 51.4%, group II -- 12.3%, group III -- 4.7%, group V -- 13%; group VI -- 18.6%. No group IV vibrios were found in the Caspian Sea. The medical and sanitary workers of Azerbaydzhann SSR have been warned that the presence of El Tor and other vibrios which are agglutinated by cholera O serum presents a constant threat of a cholera epidemic outbreak, and that at all times the necessary prophylactic measures should be enforced.

2/2

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USSR

UDC 911.3:616.981.452(479.2)

EYGELIS, Yu. K., ALIYEV, M. N., LENCHITSKIY, A. Z., and MAMADZADE, U. A.

"Present Structure and History of Natural Plague Foci in Transcaucasia"

V sb. Probl. osobo opasn. infektsiy (Problems of Especially Dangerous Infections -- collection of Works), Saratov, No 4(14), 1970, pp 58-62 (from RZh-Meditsinskaya Geografiya, No 3, Mar 71, Abstract No 3.36.113) by B. Dobrokhotoy

Translation: There are at present three autonomous zones in the Transcaucasian territory, which have natural plague foci. In the plain-foothill part of East Transcaucasia, the focal activity is maintained by red-tailed Libyan jirds, *Xenopsylla conformis* and *Ceratophyllus laeviceps* fleas. In the Armenian highlands on the alpine and subalpine meadows and mountainous plains, the enzootic is usually maintained by the common vole and by the fleas *C. caspius*, *C. consimilis* and *Frontopsylla elata*. In the semiarid zone of Nakhichevan Autonomous ASSR -- Vinogradov's gerbils, *X. conformis* and *C. iramus* fleas. The history of the origin of plague foci in Transcaucasia is described and is linked to the scattering of gerbils from the Iran-Afghanistan desert and to the special features of the course of the epizootic disease in various regions of focal activity. In spite of the common origin of all three natural foci, at present a link between them seems very unlikely.

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USSR

UDC 616.981.455.084(479.24)

AKHUNDOV, M. G., LENCHITSKIY, A. Z., EYCELIS, Yu. K., MAMENZADE, Yu. A.

"Evaluation of the Effectiveness of Antitularemia Measures in Azerbaydzhan and Problems With Respect to the Prevention of This Disease"

Baku, Azerbaydzhanskiy Meditsinskiy Zhurnal, No 6, 1972, pp 73-78

Abstract: In the Territory of the Azerbaydzhan SSR there are two active natural foci of tularemia: steppe and high-altitude stream. In some parts of the first of these foci, cases of this disease among humans were noted in 1964-1968. A significant number of preventive measures were undertaken in the republic: shooting rodents -- carriers of the disease -- controlling the disease carriers, general sanitation measures and mass vaccination of the population living in the territory of the natural foci.

The authors evaluate each of the indicated elements on the general level of preventive work and note specific problems for the future. The primary ones among these are the following: continuation of careful epizootological examination and investigation of the acquired material; protection of mass-use water supply; continuation of planned vaccination of the population; training of medical personnel; purposeful analysis of the national economic plans for transformation of nature. All of this will permit timely implementation of the measures aimed at protecting the residents of zones endangered by tularemia.

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USSR

UDC 612.822.8:612.397.81:612.143

ANOKHIN, P. K., Academician, SHUMILINA, A. I., and MAMETISOV, A. M., Institute of Normal and Pathological Physiology, Academy of Sciences USSR, Moscow

"The Properties of Statistical Parameters of the Tension Rhythm in the EEG of Cerebral Cortex and Subcortical Formations During Stress Caused by Pain"

Moscow, Doklady Akademii Nauk SSSR, Vol 209, No 1, 1973, pp 249-252

Abstract: Experiments conducted on unanesthetized rabbits with implanted electrodes revealed that during perception of pain (painful electrical stimuli of 10-sec duration applied to a hind paw at irregular intervals of 30 sec to 2 min) -- and, after a while, also in anticipation of pain -- a considerable phase shift develops in the electrograms as a result of the tension rhythm in the sensorimotor cortex becoming delayed up to 0.5 cycle as compared with the posterior hypothalamus. The cross correlation coefficient is reduced to 0.2 (from 0.3-0.8 in the control state), while the dispersion of the cortical tension rhythm is lowered to 0.5 (from 5-10). All these parameters are indicative of a considerable decrease in the activity of the cortex. At the same time, close functional ties are established between the reticular formation and the posterior hypothalamus, as manifested in full synchronization of slow waves, a rise in the cross correlation coefficient up to 0.99, and an increase in dispersion

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USSR

ANOKHIN, P. K, et al, Doklady Akademii Nauk SSSR, Vol 209, No 1, 1973, pp 249-252

to 15-25, which is also indicative of increased excitability. In that stage, the animals are restless and aggressive, and their respiratory rate is increased to 250 and heart rate to 300 per min. Thus, in a stress condition induced by pain, the activity of the cortex is reduced, cortical control over subcortical structures is weakened, and reticular and hypothalamic excitability is increased. This altered functional state of the CNS readily induces pathological changes in the function of various organ systems, especially the cardiovascular system.

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1/2 009 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--REMOVAL OF ARSENIC DURING HEAT TREATMENT AND BENEFICIATION IN AN
AQUEOUS MEDIUM OF KERCH ORES -U-
AUTHOR--TATSIYENKO, P.A., MAMICHEVA, V.P.

COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, METAL. 1970, (1), 12-16

DATE PUBLISHED-----70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, MATERIALS

TOPIC TAGS--ARSENIC, ORE BENEFICIATION, ROASTING FURNACE, ORE, NATURAL GAS,
COKE, CHEMICAL SEPARATION, CEMENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1988/0538

STEP NO--UR/0370/70/000/001/0012/0016

CIRC ACCESSION NO--AP0105523

UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0105523

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE STUDY WAS CARRIED OUT OF THE VALENCE OF AS IN THE ORE, OF THE REMOVAL OF AS DURING THE ROASTING OF MINERAL PHASES OF THE ORE USING GAS, COKE, AND MAZUT AS REDUCING AGENTS, AND OF THE MIGRATION OF AS FROM OOLITE TO CEMENT. THE ORE CONTAINS AS ESP. IN TRIVALENT FORM, WHICH ENABLES ITS REMOVAL DURING ROASTING IN NEUTRAL OR SLIGHTLY REDUCING MEDIA. BY USING GAS (13PERCENT CO AND 87PERCENT CO SUB2) AS REDUCING AGENT, AS WAS MOST QUICKLY REMOVED FROM THE FE AL SILICATE PHASE OF ALUMINOUS CEMENT. THE MIGRATION OF AS FROM OOLITE TO CEMENT WAS STUDIED BY USING BALANCE TESTS, AND IT WAS DETD. THAT WITH INCREASING TEMP. THE ADSORPTION EFFICIENCY OF THE CEMENT QUICKLY DECREASES, WHICH HELPS THE REMOVAL OF AS. TESTS OF THE MAGNETIC SEPN. WERE CARRIED OUT IN DISTD., FRESH AND SEA WATER. THE COMPN. OF THE WATER DID NOT AFFECT THE SOLY. OF AS. THE AMT. OF DISSOLVED AS IS AFFECTED BY THE TIME AND THE DEGREE OF REDN. OF THE ORE, AND IS 25PERCENT FOR THE ORE WITH 17.5PERCENT REDN.

UNCLASSIFIED

USSR

UDC: 621.372.5

MAMIKONOV, Yu. G.

"A Graphic Method of Finding the Elements of Matching Two-Terminal-Pair Networks"

Tr. Mosk. elektrotekhn. in-ta svyazi (Works of the Moscow Electrical Engineering Institute of Communications), 1970, vyp., pp 159-163 (from RZh-Radiotekhnika, No 11, Nov 70, Abstract No 11A121)

Translation: The simplest two-element L-shaped reactive two-terminal-pair network can be used for matching two-terminal-pair networks. It is shown that the elements of this network may be graphically found from predetermined source and load impedances. The solution is based on the characteristic impedances of the low- and high-frequency filter. Three illustrations, bibliography of two titles. L. S.

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USSR

UDC 632.95

SIMONOV, V. D. MAMINA, F. A., GERASIMOVA, A. I., ALYANKIN, YU. N., AKHUNOV, T. F., and VYAZOVKINA, G. I.

"Determination of the Basic Substance in Herbicidal Preparations of Yalan"

V sb. Probl. analit. Khimii (Collection of Works: Problems of Analytical Chemistry), Vol 2, Moscow, Nauka, 1972, pp 138-142 (from Referativnyy Zhurnal -- Khimiya, Svodnyy Tom, No 23(II), 1972, Abstract No 23N49 by T. A. Belyayeva)

Translation: The application of gas chromatography, spectroscopic, and titrimetric methods to determination of the basic substance in the oil emulsion and granulated preparations of yalan was evaluated. Using a thermal conductivity detector, the gas chromatography is carried out at the column temperature of 190°C, with the gas carrier (H_2) flow rate of 240 ml./min. Heat-insulating silanized brick is used the solid phase apiezon M with stearic acid is used as an immobile liquid phase. The relative error of determination does not exceed 3.4%. A study of the IR yalan spectra and of accompanying components indicated that the band 1412 cm^{-1} can be used successfully. The titrimetric method is based on the hydrolysis of S-ethyl N-hexamethylenethiocarbamate at 130°C in the presence of 85% orthophosphoric acid followed by determination of the imine formed with the acid-alkaline titration (0.1 N solution of H_2SO_4 with methyl red indicator). The determination error does not exceed 1.6%.

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USSR

UDC 547.241

NURTDINOV, S. Kh., ISMAGILOVA, N. M., MAMINA, A. I., ZYKOVA, T. V., and
TSIVUNIN, V. S., Kazan' Chemical Technological Institute imeni S. M. Kirov

"Reaction of Trivalent Phosphorus Acid Chlorides With Esters of Pyruvic
Acid"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 12, Dec 73, pp 2645-2648

Abstract: The reactions of trivalent phosphorus acid chlorides with pyruvic acid esters have been investigated; the reaction products are alkyl(aryl)-(1-chloro-1-carbalkoxy)ethylphosphinous acid chlorides. When diethylchlorophosphine is reacted with ethylpyruvate, an oxide of diethyl(1-carboethoxyethyl)phosphine and diethylphosphinous acid chlorides are formed.

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USSR

SIMONOV, V. D., GAZIZOV, R. T., ~~MAMINA, F. A.~~, SHARIF'YANOVA, L. N.

"Chromatographic Determination of Cyclical Carbon Chlorides and Their Carbo-cyclical Derivatives"

Dokl. Neftikhim. Sektsii. B'ashkir. Resp. Pravl. Vses. Khim. O-va im. D. I. Mendeleyeva, [Works of Petrochemical Section, Vashkir Republic Administration of All-Union Chemical Society imeni D. I. Mendeleyev], Vol 6, 1971, pp 320-323. (Translated from Referativnyy Zhur-al Khimiya, No 4, Moscow, 1972, Abstract No 4N652 by I. A. Revel'skiy).

Translation: A mixture of thymol, perchloromethylene-3-cyclopentene, hexacholofulvene, 2, 3, 4, 4-tetracholoro-5-dichloromethylene-2-cyclo-1-pentenone and 2, 3-dichloro-5-dichloromethylene-2-cyclo-1, 4-pentenedione is separated by GLC with a heat conductivity detector on a combined glass column (160+20×0.4 cm), the first section of which contains silanized celite 545 with 15% polyethylene glycoladipate, while the second contains the same carrier with 10% type SE-30 methyl silicone, at a temperature of 190° and a He gas carrier rate of 90 ml per minute.

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1/2 023 UNCLASSIFIED PROCESSING DATE--11SEP70
TITLE--REBOUND PHENOMENON IN THE ANTERIOR HYPOTHALAMIC NEUROSECRETORY
NUCLEI DURING THYROID RESTITUTION AFTER WITHDRAWAL OF 6 METHYLTHIOURACIL
AUTHOR--ALESHIN, B.V., MAMINA, V.V.

COUNTRY OF INFO--USSR

SOURCE--PROBL. ENDOKRINOL. 1970, 16(1), 47-56

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--URACIL, THYROID GLAND, THYROID HORMONE, BRAIN, MEDICAL
EXPERIMENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAHE--1986/1707

STEP NO--UR/0502/70/016/001/0047/0056

CIRC ACCESSION NO--AP0102473

UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0102473

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INCREASED ACTIVITY OF THE SUPRAOPTIC NUCLEUS IN RATS DURING THE INITIAL PERIOD OF RESTITUTION (AFTER WITHDRAWAL OF 6, METHYLTHIOURACIL AT 10 MG-100 G WITH THE FOOD DAILY FOR 20 DAYS) FACILITATED THE ONSET OF REBOUND PHENOMENON IN THE THYROID GLAND AND INCREASED THE I CONCN. IN THE DESTROYED THYROID PARENCHYMA. THE EFFECT OF THYROTROPIC HORMONE (TTH), WHOSE RELEASE INCREASED UNTIL THE 8TH DAY OF RESTITUTION, EVIDENTLY PROVIDED MAXIMAL REBOUND INCREASE IN THYROTROPIC FUNCTION AND FORMATION OF IODINATED THYROID HORMONES. THE INCREASED SECRETORY ACTIVITY OF THE SUPRAOPTIC CELLS COINCIDED WITH THE GREATEST INCREASE IN 2-HR I UPTAKE BY THE PARENCHYMA, SUGGESTING THAT VASOPRESSIN CAN STIMULATE THE I CONCG. THYROID MECHANISM AND PROMOTE THE ONSET OF REBOUND AND THAT THE FURTHER INCREASE IN THIS CHANGE, WHICH IS AT A PEAK ON THE 8TH DAY OF RESTITUTION, IS DETO. BY THYROTROPIC HORMONE.

UNCLASSIFIED

1/2 027 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--FATIGUE TEST FOR BOILER STEEL IN AN ASYMMETRIC LOADING CYCLE -U-
AUTHOR--(04)--KUDRYAVTSEV, I.V., BURMISTROVA, L.M., NAMINOV, A.S., SHKANOV,
I.N.
COUNTRY OF INFO--USSR
SOURCE--PROBL. PROCH. 1970, (2), 77-80
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS, METHODS AND EQUIPMENT
TOPIC TAGS--CRACK PROPAGATION, FATIGUE STRENGTH, TEST METHOD, STEAM
BOILER/(U)166NM STEEL, (U)22K STEEL
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--3006/1444 STEP NO--UR/3663/70/000/002/0077/0080
CIRC ACCESSION NO--AP0135115
UNCLASSIFIED

2/2 027

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0135115

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FATIGUE LIMIT OF STEELS 16GNM WITH A RISE IN THE MEAN LOADING CYCLE FALLS TO A GREATER EXTENT THAN THAT OF STEEL 22K. THE ESTABLISHED HIGH SENSITIVITY OF THE FORMER STEEL IS APPARENTLY DUE TO A GREATER TENDENCY TO CRACK FORMATION DURING OPERATION OF THE BOILERS. WITH A FALL IN THE YIELD POINT AND STRENGTH LIMIT IN CERTAIN STEEL HELTS OF THE TYPE 22K THERE IS A FALL IN THEIR FATIGUE STRENGTH OVER THE ENTIRE RANGE OF MEAN LOADING CYCLES. AN INCREASE IN THE STRENGTH AND YIELD LIMITS OF STEEL 16GNM DOES NOT INCREASE THE FATIGUE LIMIT DURING ASYM. LOADING IN BOILING WATER. THE USE IN FACTORY AND LAB. PRACTICE OF A DEVELOPED TEST METHOD FOR RAPIDLY CHECKING BOILER STEELS UNDER THESE CONDITIONS APPROXS. THE TEST TO REAL CONDITIONS. IT FACILITATES COMPARISON OF DIFFERENT BOILER STEELS FROM THEIR SENSITIVITY TO A SYM. LOADING. SUCH TESTS CAN BE RECOMMENDED FOR MAKING COMPONENTS FROM MATERIALS THAT ARE LESS SENSITIVE TO A SYM. LOADING IN BOILING WATER, WHICH IMPROVES BOILER OPERATION.
FACILITY: KAZAN. AVIATS. INST., KAZAN, USSR.

UNCLASSIFIED

USSR

KUCHKAROV, Ya. Kh., MAMIROV, U. E.

"Application of Topological Semifields to the Rule of the Repeated Logarithm for Markov Chains"

[Tr.] Tashkent. Politekhn. In-ta [(Works) of Tashkent Polytechnical Institute], 1972, No 76, pp 163-166 (Translated from Referativnyy Zhurnal Kibernetika, No 4, 1973, Abstract No 4V52, by the authors).

Translation: The results produced in this work are a generalization of certain known theorems on the rule of the repeated logarithm for independent random quantities for the case of quantities $\{X_k, k = 1, 2, \dots\}$ forming a homogeneous Markov chain for which there is no second moment.

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USSR

UDC 669.246

DRONOV, A. I., and MAMKIN, G. I.

"Milling of NP-2 Nickel Hot-Rolled Strip"

Moscow, Tsvetnyye Metally, No 10, Oct 70, pp 72-74

Abstract: An investigation was made to establish the geometrical parameters of a cylindrical mill with inserted hard alloy teeth. Detailed descriptions are given of tests to determine its performance in milling NP-2 nickel. The strength of mills provided with VK4, VK6M, VK10, M, and TSK10 hard alloy teeth at cutting speeds of 297 and 377 m/min were compared in order to select the optimum mill material. The best results were obtained with TSK10 hard alloy teeth. The optimum cutting speed was found to be between 360-400 m/min. Milling length and tool productivity increased when feeding was increased from 0.156 to 0.787 mm/tooth. A combination of 15° rake and 12° end relief angles yielded the best results. An economy of 2700 rubles per 1000 m of nickel was realized by using mills with hard alloy teeth instead of mills with high-speed steel teeth.

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USSR

KAPLER, R., NEKRASOV, L. I., IROSHNIKOVA, N. G., and MAMLEVEVA, N. A., Chemistry Faculty, Moscow State University imeni M. V. Lomonosov

"Paramagnetic Properties of Adsorption Layers of Chlorophyll a and b on Aluminum Oxide"

Moscow, Biofizika, Vol 16, No 1, Jan/Feb 71, pp 32-38

Abstract: Analysis of the electron paramagnetic resonance spectra of adsorbed chlorophyll a and b showed that when chlorophyll is adsorbed on aluminum hydroxide, the concentration of paramagnetic centers is 0.6 to 1.1% of the quantity of adsorbed molecules of the pigments. The number of paramagnetic centers was found to be related to the temperature, duration of light, and conditions under which the samples were kept (vacuum or air). The thermal energy required to activate the formation of unpaired electrons was determined. It is conjectured that the source of the electron paramagnetic resonance signal may be dimers formed from the strong inner overlapping of the pi-electrons of two adjacent chromatophores. The dimers are stabilized by the formation of a complex with charge transfer.

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USSR

BRAZHNIKOV, Ye. M.; KUZNETSOV, V. A.; MAMLINA, V. I.

"Functional Indexes of Perfusion With the Aid of Elevated Oxygen Pressure in an Oxygenerator-Air Pump (Experimental Investigation)"

Moscow, Voprosy Mediko-Biologicheskikh Issledovaniy. Materialy Konferentsii Molodykh Nauchnykh Rabotnikov Mediko-Biologicheskogo Fakul'teta (Aspects of Biomedical Research. Materials of a Conference of Young Scientific Workers of the Biomedical Faculty), Ministerstvo Zdravookhraneniya SSSR, 1970, 93 pp, pp 42-44

Abstract: A new perfusion method using a newly developed oxy-generator-air pump to be utilized in extracorporeal circulation is described. The effect of the new method on hemodynamics, gaseous composition, acid-base equilibrium, and biophysical properties of the blood was also studied. The method was tested on dogs. The pathomorphological effect of the method on the internal organs was studied simultaneously. The tests were

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USSR

BRAZHNIKOV, Ye. M.; et al, Voprosy Mediko-Biologicheskikh Issledovaniy. Materialy Konferentsii Molodykh Nauchnykh Rabotnikov Mediko-Biologicheskogo Fakul-teta, 1970, 93 pp, pp 42-44

conducted under conditions of complete extracorporeal circulation for one hour with a volume of circulating blood equal to 1.2-3.5 min, maintained as a result of the 100-170 mm Hg pressure difference between the oxygenator and the arterial pressure. Arterial pressure during the perfusion process was within limits of 55-85 mm Hg, venous pressure -- 0-4,5 mm Hg, while peripheral resistance was considerably increased. Arterialization of the venous blood was carried out by the bubble method, with oxygen pressure maintained at 120-280 mm Hg higher than that of the atmosphere. Blood saturation with oxygen increased from 94 to 100%; that of the venous blood decreased from 88 to 64%; shifts in the acid-base balance were characterized by the development of moderate metabolic acidosis and respiratory alkalosis. Biophysical blood indexes were marked by a decline in hemoglobin and blood viscosity. No nonreversible changes in internal organs were observed.

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- 55 -

1/2 008 UNCLASSIFIED PROCESSING DATE--300CY70
TITLE--GRANULATION OFF RUBBER MIXTURES IN A GRANULATING MACHINE OF THE
SHMGR 380-450 TYPE -U-
AUTHOR-(02)-MAMON, L.I., BULEYKO, M.N. M
COUNTRY OF INFO--USSR
SOURCE--KAUCH. REZINA 1970, 29(3), 29-32
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR

TOPIC TAGS--NATURAL RUBBER, SYNTHETIC RUBBER, VULCANIZATE, THIXOTROPTE,
GRANULE FORMATION, RUBBER WORKING MACHINERY/(U)SKO SYNTHETIC RUBBER,
(U)SKMS30ARKM15 SYNTHETIC RUBBER, (U)SHMGR GRANULATOR

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAE--2000/0970

STEP NO--UR/0138/70/029/003/0029/0032

CIRC ACCESSION NO--AP0124629

UNCLASSIFIED

2/2 008

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124629

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SEVERAL RUBBER BLENDS, E.G. NATURAL RUBBER (I) PLUS 30PERCENT SKD, I PLUS 80PERCENT SKMS-30ARKM-15, AND 100PERCENT I WERE GRANULATED IN A SHMGR 380-450 GRANULATOR IN ORDER TO DET. THE PRESSURE DISTRIBUTION WITHIN THE GRANULATOR. THE PRESSURE CHANGES IN THE GRANULATOR VARIED EXPONENTIALLY. THE NONUNIFORM PRESSURE DISTRIBUTION IN THE GRANULATOR DISK WAS DUE TO THIXOTROPIC FLOW AND PULSATION AND WAS PROPORTIONAL TO THE I CONTENT OF THE BLEND. AN EQUATION WAS DERIVED FOR CALC. OF STRESS EXERTED ON THE GRANULATOR HEAD. FACILITY: DNEPROPETROVSK. KHIM.-TEKHNOL. INST., DNEPROPETROVSK, USSR.

UNCLASSIFIED

USSR

UDC: 620.17

VASIL'YEV, A. I., MAMONOV, A. A., TSIBIN, G. I.

"Some Problems in Developing Precision Strain-Gauge Instruments for Measuring Force and Mass"

Tr. Sib. NII metrol. (Works of the Siberian Scientific Research Institute of Metrology), 1971, vyp. 13, pp 7-9 (from RZh-Mekhanika, No 7, Jul 72, Abstract No 7V1156)

Translation: It is shown that the material of the elastic pickup element of an electronic strain-gauge device for measuring mass or force must have high reproducibility of elastic deformation; i. e. it must have a minimum level of microplastic deformations. It is found that alloy steels widely used for making elastic elements correspond to this requirement in the normalization state. A design is described for a 10 000 kg electronic strain-gauge beam balance pickup in which the transducer converting deformation to an electric signal is made in the form of a three-electrode capacitor with two fixed working electrodes. The pickup is hermetically sealed and has a temperature compensation range of $20 \pm 15^\circ\text{C}$, which means that masses can be measured with a precision

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USSR

VASIL'YEV, A. I. et al., Tr. Sib. NII metrol., 1971, vyp. 13, pp 7-9

to 0.01% in a range from 1000 to 10 000 kg at a distance of up to 50 m. The measurement system contains a device for correcting readings as a function of the local value of acceleration due to gravity. H. A. Petrova.

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USSR

UDC: 621.317.334(088.8)

MAMONOV, A. A., GIRZHMANN, N. I., Novosibirsk Institute of Measures and Measuring Devices

"Measures With Low Inductances"

USSR Author's Certificate No 278792, filed 3 Jun 68, published 26 Nov 70
(from RZh-Radiotekhnika, No 6, Jun 71, Abstract No 6A261 P)

Translation: This Author's Certificate introduces measures with small inductance values made in the form of sections of coaxial and helical line. As a distinguishing feature of the patent, the range is extended in the direction of small inductances, and inductance variation is reduced while simultaneously improving measurement precision by forming the current terminals from the housing of the device and the inner electrode, while the voltage terminals are formed by a lateral opening in the housing and a rod which is in point contact with the inner electrode.

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USSR

UDC: 621.317

MAMONOV, A. A., GERBER, A. A.

"Measuring the Parameters of Low Mutual-Inductance Coils on Frequencies up to 10 MHz"

Dokl. Vses. nauchno-tekhn. konferentsii po radiotekhn. izmereniyam. T. 1 (Reports of the All-Union Scientific and Technical Conference on Radio Engineering Measurements. Vol. 1), Novosibirsk, 1970, pp 52-55 (from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1A371)

Translation: The authors present two measurement circuits which were studied at the SNIIM [expansion unknown]. One of these circuits is designed for low and extremely low mutual inductances (10^{-10} - 10^{-3} H), while the other (a bridge resonance circuit) is for measuring mutual inductance ($3 \cdot 10^{-7}$ - 10^{-2} H) and the tangent of the inductance phase angle (10^{-4} - 10^{-1}). Formulas are given for determining the measured quantities, and errors are noted. Two illustrations, bibliography of three titles. E. L.

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USSR

UDC: 632.954:634.92

MANONOV, N. I., Trans-Karpatian Forest Experimental Station

"Application of Herbicides for Exterminating Grass Obstructing Natural Reforestation"

Moscow, Khimiya v Sel'skom Khozyaystve, no 11, Nov 70, pp 42-43

Abstract: In the Carpathians, where forests are a major protection factor, natural reforestation has been impeded due to ample grass vegetation, specifically the swamp blackberry *Rubus alpinus* W. et K. Mechanical means have failed to produce positive results. Described here are tests involving various herbicides. The solar solution of butyl ether, and ammonium sulfamate have had no particular effects on beech sprouts; they may be of use only in forest areas without young forest trees. Solar oil, sodium and amine salts of 2,4-D have had little effect on swamp blackberry even when applied in large doses and are therefore not recommended for use in the forest. DNOK, in an aqueous solution, sprayed in doses of 25-30 kg/ha of active ingredient in the summer or in the fall is effective against swamp blackberry on plots with advanced beech growth. However, extreme caution is urged in large-scale application because of the hazard to humans and animals.

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USSR

UDC 548.55 : 612.373.8

BUBNOV, M. M., BUZHINSKIY, I. M., DIANOV, Ye. M., MAMONOV, S. K., MIKHAYLOVA, L. I., and PROKHOROV, A. M., Academician, Physics Institute imeni P. N. Lebedev, Academy of Sciences USSR, Moscow

"Change in the Sign of the Thermal Lens of Glass Laser Rods With a Change in the Glass Thermo-optical Constant"

Moscow, Doklady Akademii Nauk SSSR, Vol 205, No 3, 1972, pp 556-559

Abstract: The article describes results of a study of glasses with both positive and negative, constant thermo-optical values. The focal distances of the thermal lens which forms during periodical laser rod pumping were measured by the autocollimation method. It was found that the thermal lens power decreases, as the thermo-optical constant decreases, and changes sign at some constant thermo-optical values. This correlation between lens power and the thermo-optical constant of the glass occurs for glasses of various compositions (silicate, boron phosphate, phosphate). The mechanisms leading to lens formation are considered in order to explain this relation.

The authors thank S. I. KURGACHEV for his aid in the experiments.

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by neodymium. S. K. Mikhailova, L. M. Prokhorov, A. M. (Giz. Inst. im. Lebedeva, Moscow, USSR). Dokl. Akad. Nauk SSSR 1970, 190(3), 558-61 [Phys] (Russ). A new method to measure the thermo-optical const. $W = \alpha(n - 1) + \beta_{T,\lambda}$ is given, where α is the coeff. of linear expansion of a glass, n refractive index, and $\beta_{T,\lambda}$ the temp. coeff. of n . The measurement was done in the region 10-45° for wavelengths 0.63 and 1.15 μ , by using as a light source Ne-He laser LG-126. The temp. gradient, perpendicular to the light beam in the glass 10 × 60 × 130 mm, was produced by water baths, one of const. temp. at 10° and the other with temp. varying slowly 10-45°. A diaphragm with 2 holes (1 mm cross section) at 7 mm to sep. beams passing the glass through the zones with different temp., was used. By an optical system it was possible to follow the change of the optical path $\Delta P = \Delta N \lambda = L \nabla T$, where ΔN is the no. of interference fringes shifted after the temp. gradient was formed in the glass,

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CHEMICAL ABST. 5-70

Ref. Code:

4R 0020

103301q Thermo-optical characteristics of glasses activated
by neodymium. Buzhinskii, I.M.; Dianov, E.M.; Mironov,
S.M.; Mikhailov, Y.M.; Boshakov, A.M. Izv. Inst. im.

AT0050267

L was the length of the rod, λ wavelength of the light used, and
 ΔT the temp. difference. The value of α was 10^{-6} per $^{\circ}\text{C}$.

USSR

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BUZHINSKIY, I. M., DIANOV, YE. N., ~~MAHONOV, G. K.~~ MIKHAYLOVA, L. M., and
PROKHOROV, A. M., Academician, Physics Institute imeni P. N. Lebedev of the Academy of Sciences USSR, Moscow

"Thermo-optical Characteristic of Glasses Activated by Neodymium"

Moscow, Doklady Akademii Nauk SSSR, Vol. 190, No. 3, 21 Jan 70, pp 558-561

Abstract: The problem of the thermal distortion of laser resonators associated with the development of glass lasers with a high energy density is discussed. It is noted that the active elements of neodymium-activated glass lasers have a high optical homogeneity; the change in the refractive index in a transverse cross section of the rod does not exceed $1 \cdot 10^{-7}$ for a 2.5-cm rod. However, this high homogeneity in the glass does not occur during laser operation, due to a temperature gradient developed by nonuniform pumping; this gradient, in turn, leads to a gradient in the index of refraction. A new method is presented for measuring directly the thermo-optical constant W of glasses, and values of W are given for the following neodymium-activated glasses: KGSS-3, KGSS-7, LGS-24-5, LGS-28-2, KGSS-46, LGS-36, and LGS-41. The LG-126 neon-helium laser was used as a source to measure the thermo-optical constants in the temperature interval 10-150°C.

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BUZHINSKIY, I. M., et al, Doklady Akademii Nauk SSSR, Vol. 190, No. 3, 21 Jan 70, pp 558-561

lengths 0.63 and 1.15 μ . The minimum thermal distortion at this temperature was exhibited by glasses with a thermo-optical constant in the limits $(-10 - +10) \cdot 10^{-7} / ^\circ\text{C}$. Measurements showed that glasses KGSS-3 and LGS-41 satisfy conditions for minimum thermal distortion.

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1/2 021 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--DETERMINATION OF THE STERIC ORIENTATION OF THE HYDROXYL GROUPS OF
STEREISOMERIC 4,ETHYNYL,4,PIPERIDINDOLS AND THEIR ANALOGS ACCORDING TO
AUTHOR--(05)-MAMONOV, V.I., DVORYANTSEVA, G.G., SOKOLOVA, T.D., SYSOYEVA,
E.B., UNKOVSKIY, B.V.
COUNTRY OF INFO--USSR

SOURCE--ZZH. ORG. KHIM. 1970, 6(5), 1087-91

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--STEREOCHEMISTRY, IR SPECTRUM, PIPERDINE, HYDROXYL RADICAL,
QUINOLINE, ALKYNE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3006/1266

STEP NO--UR/0366/70/005/005/1087/1091

CIRC ACCESSION NO--AP0134940

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UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0134940

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE WAVE NO., THE INTENSITY, AND THE WIDTH AT MID POINT OF IR BANDS ASSIGNED TO AXIAL (ALPHA) OH GROUPS OF 2R,4R PRIME1, DISUBSTITUTED,4, HYDROXY,1,5, DIMETHYLPYPERIDINES (I) WERE ALL HIGHER THAN THOSE ASSIGNED TO THE EQUATORIAL (EPSILON) OH GROUPS. E.G. I (R EQUALS H, R PRIME1 EQUALS C TRIPLE BOND CH) HAD AN ALPHA OH BAND AT 3619 CM PRIME NEGATIVE1 AND AN EPSILON OH BAND AT 3611 CM PRIME NEGATIVE1. SIMILAR DIFFERENCES WERE FOUND WITH OTHER I (R AND R PRIME1 GIVEN): ME, C TRIPLE BOND CH; H, ET; AND ME, ET. ANALOGOUS ALPHA EPSILON OH BAND DIFFERENCES EXIST IN 4,(R, SUBSTITUTED), 4, HYDROXY, 2, METHYLDECAHYDROQUINOLINES (R IS ET OR C TRIPLE BOND CH).

FACILITY: MOSK. INST. TONKDI KHEM. TEKINDL. IN. LOMONOSOVA, MOSCOW, USSR.

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USSR

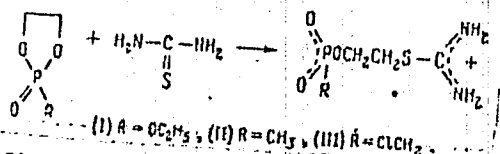
LDC 547.26*118

MIZRAKH, L. I., YAKOVELEV, YUKHNO, YE. M., and MAMONOV, V. I.

"Phosphorus-containing Derivatives of Isothiuronos. II. Cleavage of Dioxaphospholane and Dioxaphosphorene Rings by Thiocarbamide"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(104), No 8, 1972, pp 1700-1705

Abstract: Thiocarbamide (TCA) will react with 1,3,2-dioxaphospholane by opening the ring in the following manner:



The R exerts a significant influence on the ease of alkylation, in the order ClCH₂ > OC₂H₅ > CH₃. 4-Methyl-1,3,2-dioxaphospholanes and 2-(formamidentio)-ethyl esters of phosphorous acid react with TCA in an analogous manner. Seven compounds were prepared by TCA reactions. These were characterized by elemental composition and IR, UV, and NMR spectra.

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1/2 022 UNCLASSIFIED PROCESSING DATE--02OCT70
TITLE--IR ABSORPTION SPECTRA AND SPATIAL STRUCTURE OF STERO ISOMERIC
1,2,5,TRIMETHYL,4,HYDROXY,4,PICERIDYLCARBINGLS -U-
AUTHOR--(05)-MAMONOV, V.I., DVORYANTSEVA, G.G., SHULAYEV, N.P., SYDYEVA,
E.G., UNKOVSKIY, B.V.
COUNTRY OF INFO--USSR
SOURCE--KHIM. GETEROTSIKL. SOEDIN. 1970 (2) 173-9
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--IR SPECTRUM, MOLECULAR STRUCTURE, HYDROXYL RADICAL,
HETEROCYCLIC NITROGEN COMPOUND, HYDROGEN BONDING
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1992/1503 STEP NO--UR/0409/70/000/002/0173/0179
CIRC ACCESSION NO--AP0112497
UNCLASSIFIED

2/2 022

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0112497

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CONFIGURATION AND CONFORMATION OF
I (R PRIME1 AND R PRIME2 EQUALS H, ME, ET, AND PH) WERE ESTD. ON THE
BASIS OF IR. SPECTROSCOPIC STUDY OF I INTRAMOL. H BONDS.

UNCLASSIFIED

89

USSR

UDC: 532.526.4.001.5

ALIMPIYEV, A. I., MAMONOV, V. N., MIRONOV, B. P., Novosibirsk

"Energy Spectra of Velocity Pulsations in a Turbulent Boundary Layer on a Permeable Plate"

Novosibirsk, Zhurnal Prikladnoy Mekhaniki i Tekhnicheskoy Fiziki, No 3, May/Jun 73, pp 115-119

Abstract: The paper gives the results of measurements of pulsations of a turbulent boundary layer on a flat permeable plate over a range of variation of the blow-in parameter from 0 to 20. It is shown that in the case of supercritical blow-in there is a zone close to the surface in which the energy spectra of velocity pulsations do not change with increasing distance from the surface, and differ from the spectra in the main body of the boundary layer.

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Measuring, Testing, Calibrating

USSR

UDC 621.317.757:681.327.2

GOLENISHCHEV, I. A., YELDASHEV, V. V., and MAMONOV, Ye. I.

"Arrangement for the Derivation of Information From Multichannel Analyzers"

Tr. VNII Radiats. Tekhn. [Works of the All-Union Scientific Research Institute of Radiation Technology], 1972, No 7, pp 188-195 (from Referativnyy Zhurnal, No 11, Nov 72. 32. Metrologiya i Izmeritel'naya Tekhnika. Single Issue. Abstract No 11.32.54)

Translation: The arrangement for derivation of information from a multi-channel analyzer makes it possible to set free the "memory" of the pulse analyzer (derivation of 1024 channels takes approximately 45 sec when using the PL-150 punched tape) and to carry out the processing of information with the help of a digital computer. Besides that, the described arrangement can enter into the measuring complex in the capacity of additional channel of information derivation. An experimental model of such arrangement was adjusted and has passed laboratory tests in the system of direct information transmission in digital computer. The characteristic of information carrier, the block diagram, and the design of the arrangement are presented. Four illustrations, one table, six bibliographical references.

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UDC 669.295.539.292

KOLACHEV, B. A., MAMONOVA, F. S., LYASOTSKAYA, V. S., and VEDNEVA, L. S.,
Moscow Aviation Technological Institute. Chair of the Science of Metals and
Hot Working of Metals

"Investigating the Structure and Properties of Annealed Alloys of Ti-Mo System"

Ordzhonikidze, Izvestiya Vysshikh Uchebnykh Zavedeniy, Tsvetnaya Metallurgiya,
No 3, 1973, pp 120-124

Abstract: A study was made of the rules of changing properties and phase composition of titanium-molybdenum alloys, depending on molybdenum content. The investigated alloys were produced from TC-100 sponge with additions of 0.06% Fe, 0.02% Si, 0.04% O₂, and 0.03% C. The alloys were annealed by heating to 950⁰, with subsequent soaking for one hour and cooling to 800⁰ and 750⁰ in air and 700⁰ and 650⁰ in water. The influence of Mo-content on the differently annealed alloys and their mechanical properties is demonstrated. Titanium alloys and their mechanical properties is demonstrated. Titanium alloys with 6.8, 8.6, 11.4, and 13% Mo annealed at 800, 750, 700, and 650⁰ C, respectively, with air cooling have the highest strength. The two-phase Ti+11.4% Mo alloy with very fine ($\alpha + \beta$)-structure without ω -phase possesses maximum strength

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